AMENDMENT TO THE SPECIFICATION

Please replace paragraph **[0016]** with the following amended paragraph:

[0016] The temperature of the resonator is monitored by the sensor **30**. A current of known magnitude is run through sensor **30**, and a voltage reading is taken at the Kelvin connections across the sensor **30**. A resistance is calculated from the known current and voltage reading, and routed back to the processor **40**. In the case of a simple metal resistor, a baseline resistance of the sensor **30** at room temperature is determined. The simple metal resistor has a well-defined temperature coefficient of resistance (TCR). TCR is usually expressed as a percent change in resistance per degree Celsius (% / °C). Any percent change in resistance can be translated into a temperature change. The change in resistance is transmitted to the processor **40**, which alters the current supplied to the heater until the requested temperature change in the metal is reached. TCRs for various materials are well documented. Additionally, processor **40** can be loaded with algorithms that identify the temperature change that corresponds to the measured resistance change, and the frequency of light that will be propagated at that temperature by the resonator **20**. Consequently, the temperature of the resonator **20** can be precisely controlled in a deliberate step manner through the heater element **35**, the sensor **30**, and the feedback loop and logic of the processor **40**. Processor **40** may be in the form of a logic device having readout circuitry for associating one or more frequencies of light to one or more temperatures of resonator **20**. By precisely controlling the temperature of the resonator **20**, a particular frequency of light can be selected in a deliberate step manner. The ability to precisely alter the temperature of the resonator **20** in a deliberate step manner over a range of temperatures permits the resonator **20** to function as a variable tunable switch, thereby making a range of corresponding frequencies available for selection.